Flood stages during March, 1923—Continued.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
MISSISSIPPI DRAINAGE—continued.					
Illinois:	*Feet.*			*Feet.*	
Peru, Ill.	14	14	(2)	16.3	18
Henry, Ill.	7	15	(2)	10.4	25
Peoria, Ill.	16	19	(2)	17.2	28
Havana, Ill.	14	22	(2)	14.6	27-29
Beardstown, Ill.	12	16	(2)	15.4	28
Meramec:					
Pacific, Mo.	11	13	14	13.6	14
Do.	11	16	18	14.6	18
Valley Park, Mo.	14	14	14	15.4	14
Do.	14	16	19	16.9	18
Bourbeuse:					
Union, Mo.	10	14	14	10.0	14
Do.	10	17	18	11.7	18
St. Francis:					
Marked Tree, Ark.	17	(1)	7	18.0	1
Do.	17	19	(2)	18.7	30-31
Petit Jean:					
Danville, Ark.	20	(1)	1	20.5	1
Do.	20	7	9	21.5	8
Do.	20	17	19	22.7	18
White:					
Calico Rock, Ark.	18	16	16	18.8	16
Batesville, Ark.	23	16	17	25.6	17
Newport, Ark.	26	18	19	26.5	19
Georgetown, Ark.	22	17	29	23.4	22-23
Black:					
Black Rock, Ark.	14	12	(2)	23.6	18
Cache:					
Patterson, Ark.	9	11	29	9.6	16-17
Yazoo:					
Yazoo City, Miss.	25	2	14	26.2	7-8
Do.	25	16	(2)	27.2	27
Tallahatchie:					
Swan Lake, Miss.	25	(1)	8	26.9	1
Do.	25	28	(2)	26.7	31
Sulphur:					
Ringo Crossing, Tex.	20	7	9	20.5	7
Finley, Tex.	24	11	12	24.1	12
Ouachita:					
Camden, Ark.	30	2	5	31.9	4
Do.	30	9	14	34.0	11
WEST GULF DRAINAGE.					
Sabine:					
Logansport, La.	25	(1)	5	26.9	2
Bon Weir, Tex.	20	3	9	20.8	4-5
Do.	20	30	(2)	21.8	31
Neches:					
Rockland, Tex.	22	2	3	22.3	2
Trinity:					
Liberty, Tex.	25	3	4	25.6	3-4
Do.	25	31	(2)	25.5	31
Guadalupe:					
Victoria, Tex.	16	28	28	17.7	28
Do.	16	30	(2)	18.7	31

[1] Continued from February. [2] Continued into April.

MEAN LAKE LEVELS DURING MARCH, 1923.

By UNITED STATES LAKE SURVEY.

[Detroit, Mich., April 7, 1923.]

The following data are reported in the "Notice to Mariners" of the above date:

Data.	Lakes.[1]			
	Superior.	Michigan and Huron.	Erie.	Ontario.
Mean level during March, 1923:	*Feet.*	*Feet.*	*Feet.*	*Feet.*
Above mean sea level at New York	601.45	578.98	570.98	244.74
Above or below—				
Mean stage of February, 1923	−0.15	+0.17	+0.10	+0.27
Mean stage of March, 1922	+0.22	−0.44	−0.41	−0.34
Average stage for March, last 10 years	−0.29	−1.10	−0.81	−0.94
Highest recorded March stage	−0.83	−3.97	−2.87	−3.07
Lowest recorded March stage	−0.79	−0.13	+0.15	+0.44
Average relation of the March level to—				
February level		+0.10	+0.10	+0.20
April level		−0.40	−0.70	−0.70

[1] Lake St. Clair's level: In March, 573.62 feet.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, MARCH, 1923.

By J. B. KINCER, Meteorologist.

March, as a whole, was colder than normal in all sections of the country, except in the Middle and South Atlantic States, and in the far West and Northwest. The temperature averaged much below normal in the western Lake region, upper Mississippi Valley, and in the central and southern Rocky Mountain States. There was sufficient precipitation for agricultural needs, except in portions of Florida, parts of the Great Plains, some southwestern districts, and in California. Rainfall was heavy in most sections south of the Ohio and middle Mississippi Valleys, and snowfall was heavy in most northern localities from the upper Mississippi Valley eastward, with considerable cloudy weather in the South.

The first half of the month was comparatively mild east of the Rocky Mountains and vegetation and farm work made mostly satisfactory progress. The long drought in northwestern Texas, western Oklahoma, and eastern Kansas was broken by rather generous precipitation during the week ending March 13, but it continued dry in western Kansas, Nebraska, and the eastern portions of the central Rocky Mountain States.

Under the influence of mild temperatures in the Southern States, early fruit advanced rapidly and by the 20th of the month, early peaches, plums, and pears were blooming throughout the Gulf States and were coming into bloom northward to Oklahoma, northern Arkansas, and east-central North Carolina. At this time, a severe cold wave overspread all sections of the country east of the Rocky Mountains, the temperature dropping to 10° above zero in central Oklahoma, 14° above in central Arkansas, and 24° to 26° to the central portions of the east Gulf States. This freeze did much damage to early fruit throughout the Southern States, although the later varieties of peaches, including Elbertas in Georgia, were not badly damaged in some localities.

Winter wheat made but little growth during the last half of the month because of the prevailing cold weather and some damage was done by freezing in portions of the Ohio Valley. In the trans-Mississippi States the month was rather favorable for wheat, except in the drier sections of the Great Plains where the crop was in very poor condition. Oats suffered severe damage from the cold in the southern Great Plains, particularly in Oklahoma, and the latter part of the month was very unfavorable for the preparation of soil and seeding in the Central States. The weather was unfavorable also for the preparation of corn ground and planting was delayed in much of the South by the cool, wet weather.

Planting and replanting cotton made fair progress in southern Texas and at the close of the month, planting was more general in the Atlantic coast area, but considerable replanting was necessary in southern Georgia, where much early planted cotton was killed by the freeze of the 20th. The soil was too cold and wet for much field work in the central Gulf States.

There was sufficient precipitation to improve ranges in most of the great western grazing districts, although more moisture was badly needed in California and pastures were starting slowly in the North Pacific Coast States. The latter part of the month was cold, stormy, and unfavorable for stock in the central Rocky Mountain section, with some losses reported in Colorado. Grass was starting slowly in Central and Eastern States and much young clover was killed by freezing in the Ohio Valley section.